Graco EP Series

Peristaltic Hose Pump Technology

Single, oversized roller compresses a low friction hose through a full 360-degrees of rotation

- More flow per revolution than conventional designs
- Inexpensive to maintain – no valves, seals or glands
- Pumps are reversible and can be used to empty lines or clear blockages
- Integral drive and motor can run as low as 1 rpm
- Extended hose life - only one hose compression per revolution

PROVEN QUALITY. LEADING TECHNOLOGY.

EP SERIES HOSE PUMPS

Unique Advantages

Graco's positive displacement hose pumps rotate a full 360-degrees.

Because they use a single roller to compress the hose once per revolution, your hoses last longer so you have less maintenance and downtime.

EFFICIENT PUMPING ACTION

- One hose compression per revolution extends hose life

LOW MAINTENANCE

- Quick replacement of hose and tube
- No moving parts in the fluid stream

INTEGRAL DRIVE TRAIN

- Pump speeds as low as 1 rpm

REMOVABLE COVER

- Easier access to internal parts, making maintenance fast and simple

HOSE CLAMP ASSEMBLY

- One-piece "quick change" assembly for easy service

Built to Handle the Toughest Jobs

Only the interior of the hose is in contact with the fluid being pumped, making it easy to sterilize and clean the inside pumping surfaces. The gentle pumping action is ideal for shear sensitive materials and fragile cell cultures.

Innovative hose design

Graco's 360-degree hose pump is designed to put 40% less stress on the hose compared to conventional shoe pumps running at the same flow rate. The hoses are highly engineered for long life and durability and are available in a wide variety of configurations for the most demanding applications and materials.

Choose from 4 different hose materials to meet your specific application requirements

Hose Materials	Stripe Color / Inside Color	Max. Fluid Temperature
Natural Rubber (NR)	None / Black	160ºF (71ºC)
Nitrile	Yellow / Black	220ºF (104ºC)
Ethylene propylene (EPDM)	Blue / Black	250ºF (121ºC)
Chlorosulfonated polyethylene (CSM)	Orange / Black	250ºF (121ºC)

EP Series Pumps

EP2
typically used for chemical metering applications

EP3
typically used for chemical metering or sanitary applications

EP4
typically used for abrasive material transfer applications

Three easy steps to choosing the right pump for YOU!

1. **Choose your pump size to meet your flow requirement**
   Refer to the Performance Charts below to choose your Pump Model.
2. **Choose your pump speed range**
   Using the Selection Charts, go to your Model Number and find the Gear Ratio for your desired pump speed.
3. **Choose your hose & hose barb materials to meet your material properties**
   Keep moving down the Selection Charts to select your hose material and your hose barb material.

STEP 1 Choose Your Pump Model

Pump Model EP2006

Min continous flow (2 rpm): ..... 0.008 gpm (0.03 lpm)
Max continous flow (35 rpm): ..... 0.14 gpm (0.53 lpm)
Capacity: ..... 0.004 gal/rev (0.015 l/rev)
Max discharge pressure: ..... 125 psi (8.6 bar)
Hose diameter: ..... 6 mm
Port size: ..... 1/2 in male NPT
Motor power: ..... 0.5 Hp

Pump Model EP2013

Min continous flow (6 rpm): ..... 0.096 gpm (0.36 lpm)
Max continous flow (50 rpm): ..... 0.8 gpm (3.02 lpm)
Capacity: ..... 0.016 gal/rev (0.06 l/rev)
Max discharge pressure: ..... 125 psi (8.6 bar)
Hose diameter: ..... 13 mm
Port size: ..... 1/2 in male NPT
Motor power: ..... 0.75 Hp

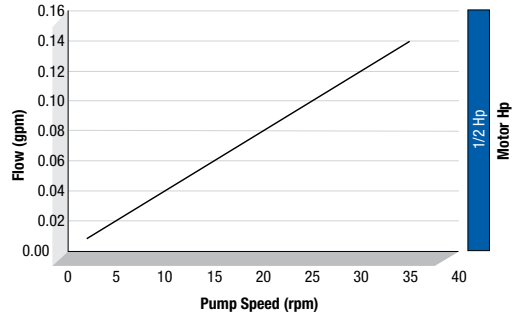
Pump Model EP3019

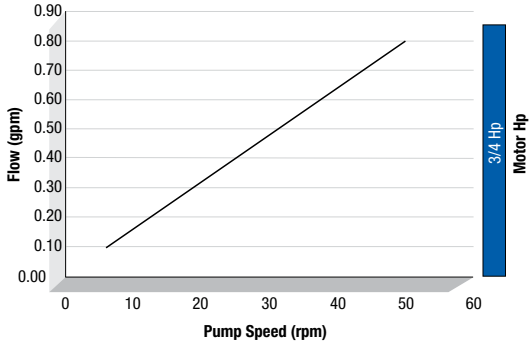
Min continous flow (3 rpm): ..... 0.144 gpm (0.55 lpm)
Max continous flow (50 rpm): ..... 2.4 gpm (9.08 lpm)
Capacity: ..... 0.048 gal/rev (0.182 l/rev)
Max discharge pressure: ..... 125 psi (8.6 bar)
Hose diameter: ..... 19 mm
Port size: ..... 3/4 in male NPT
Motor power: ..... 1.5 Hp

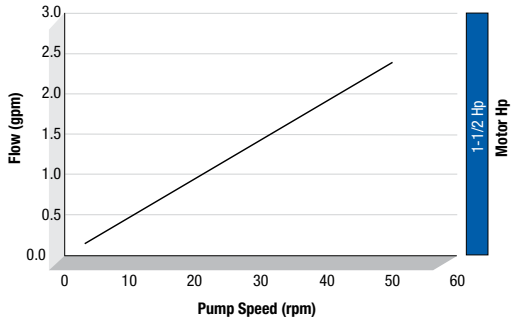
Pump Model EP4029

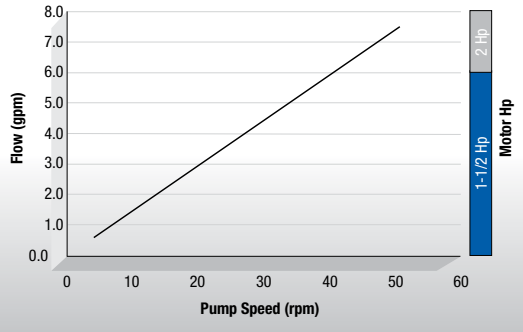
Min continous flow (4 rpm): ..... 0.60 gpm (2.27 lpm)
Max continous flow (130 rpm): ..... 19.5 gpm (73.8 lpm)
Capacity: ..... 0.15 gal/rev (0.568 l/rev)
Max discharge pressure: ..... 125 psi (8.6 bar)
Hose diameter: ..... 29 mm
Port size: ..... 1-1/4 in male NPT
Motor power: ..... 1.5 - 2.0 Hp

Performance Charts









Graco Assembled Complete Pumps

(Fully assembled pumps include hose pump, motor/gearbox and glycerin lube)

STEP 2 Choose Your Pump Speed Range

Selection Chart

Model	EP2006		EP2013		EP3019		EP4029		
Max flow - gpm (lpm)	35 rpm = 0.14 (0.53)		50 rpm = 0.8 (3.02)		50 rpm = 2.4 (9.08)		130 rpm = 19.5 (73.8)		
Flow - gallon/rev (liter/rev)	0.004 (0.015)		0.016 (0.060)		0.048 (0.182)		0.15 (0.568)		
Pump Speed Range	Low	Mid	Low	Mid	Low	Mid	Low	Mid	High
Pump Speed @ 60 Hz - rpm	11	35	11	51	18	50	23	52	91
Flow Rate @ 60 Hz - gpm (lpm)	0.046 (0.17)	0.14 (0.52)	0.17 (0.64)	0.82 (3.1)	0.86 (3.2)	2.4 (9.0)	3.4 (12.8)	7.9 (29.9)	13.7 (51.8)
Maximum Working Pressure	125 psi (8.6 bar)		125 psi (8.6 bar)		125 psi (8.6 bar)		125 psi (8.6 bar)		
Maximum Suction Lift - ft (m)	29 (8.9)		29 (8.9)		29 (8.9)		29 (8.9)		
Operation Manual	3A1938		3A1938		3A1938		3A1938		
Repair Parts Manual	3A1940		3A1940		3A1939		3A1939		
Pump Inlet / Outlet Size	1/2 inch male NPT		1/2 inch male NPT		3/4 inch male NPT		1-1/4 inch male NPT		

STEP 3 Choose Your Hose & Hose Barb Materials

Selection Chart

Hose Material	Hose Barb Material	EP2006		EP2013		EP3019		EP4029		
Natural Rubber	316 SST	24L104	24L118	24L188	24L202	24L546	24L560	25L028	25L042	25L056
Nitrile	316 SST	24L107	24L121	24L191	24L205	24L549	24L563	25L031	25L045	25L059
	Hastelloy-C	24L108	24L122	24L192	24L206	24L550	24L564	25L032	25L046	25L060
EPDM	316 SST	24L100	24L114	24L184	24L198	24L542	24L556	25L024	25L038	25L052
	Hastelloy-C	24L101	24L115	24L185	24L199	24L543	24L557	25L025	25L039	25L053
CSM	316 SST	24L105	24L119	24L189	24L203	24L547	24L561	25L029	25L043	25L057
	Hastelloy-C	24L106	24L120	24L190	24L204	24L548	24L562	25L030	25L044	25L058

Graco Pump Kits with roller not installed

(Fully assembled pumps and glycerin lube with the roller shipped in a separate package)

STEP 2 Choose Your Pump Speed Range

Selection Chart

Model	EP2006		EP2013		EP3019		EP4029		
Max flow - gpm (lpm)	35 rpm = 0.14 (0.53)		50 rpm = 0.8 (3.02)		50 rpm = 2.4 (9.08)		130 rpm = 19.5 (73.8)		
Flow - gallon/rev (liter/rev)	0.004 (0.015)		0.016 (0.060)		0.048 (0.182)		0.15 (0.568)		
Pump Speed Range	Low	Mid	Low	Mid	Low	Mid	Low	Mid	High
Pump Speed @ 60 Hz - rpm	11	35	11	51	18	50	23	52	91
Flow Rate @ 60 Hz - gpm (lpm)	0.046 (0.17)	0.14 (0.52)	0.17 (0.64)	0.82 (3.1)	0.86 (3.2)	2.4 (9.0)	3.4 (12.8)	7.9 (29.9)	13.7 (51.8)
Maximum Working Pressure	125 psi (8.6 bar)		125 psi (8.6 bar)		125 psi (8.6 bar)		125 psi (8.6 bar)		
Maximum Suction Lift - ft (m)	29 (8.9)		29 (8.9)		29 (8.9)		29 (8.9)		
Operation Manual	3A1938		3A1938		3A1938		3A1938		
Repair Parts Manual	3A1940		3A1940		3A1939		3A1939		
Pump Inlet / Outlet Size	1/2 inch male NPT		1/2 inch male NPT		3/4 inch male NPT		1-1/4 inch male NPT		

STEP 3 Choose Your Hose & Hose Barb Materials

Selection Chart

Hose Material	Hose Barb Material	EP2006		EP2013		EP3019		EP4029		
Natural Rubber	316 SST	24L374	24L388	24L458	24L472	24L630	24L644	25L094	25L108	25L122
Nitrile	316 SST	24L377	24L391	24L461	24L475	24L633	24L647	25L097	25L111	25L125
	Hastelloy-C	24L378	24L392	24L462	24L476	24L634	24L648	25L098	25L112	25L126
EPDM	316 SST	24L370	24L384	24L454	24L468	24L626	24L640	25L090	25L104	25L118
	Hastelloy-C	24L371	24L385	24L455	24L469	24L627	24L641	25L091	25L105	25L119
CSM	316 SST	24L375	24L389	24L459	24L473	24L631	24L645	25L095	25L109	25L123
	Hastelloy-C	24L376	24L390	24L460	24L474	24L632	24L646	25L096	25L110	25L124
	PVDF	24W550	24W549	24W553	24W552	24W557	24W556	24W563	24W562	24W561

Hose Pumps with No Motor Drive

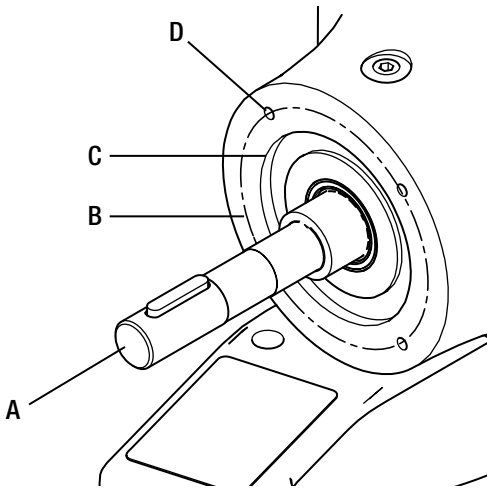
(Fully assembled pumps with customer supplied motor drive)

Hose Material	Hose Barb Material	EP2006	EP2013	EP3019	EP4029
Natural Rubber	316 SST	24M739	24M767	24M795	24M820
Nitrile	316 SST	24M742	24M770	24M798	24M823
	Hastelloy-C	24M743	24M771	24M799	24M824
EPDM	316 SST	24M735	24M763	24M791	24M816
	Hastelloy-C	24M736	24M764	24M792	24M817
CSM	316 SST	24M740	24M768	24M796	24M821
	Hastelloy-C	24M741	24M769	24M797	24M822
	PVDF	24W551	24W554	24W558	24W564

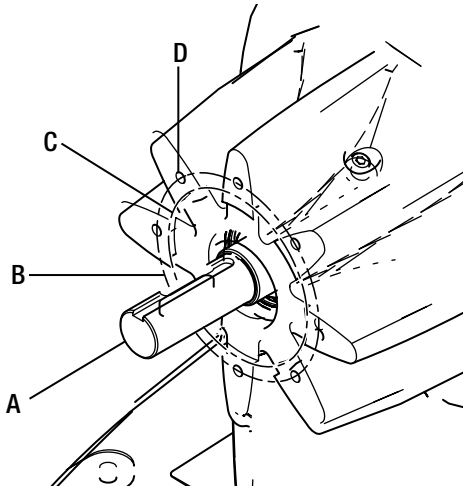
Mounting a Non-Graco Motor

To mount a non-Graco motor and gearbox to a bare EP Hose Pump

EP Series Pump Size	Hollow Bore Shaft Diameter A	Bolt Circle Diameter B	Flange Pilot Diameter C	Mounting Hole Thread Size D
EP2	20 mm	100 mm	80 mm	M6
EP3	30 mm	130 mm	110 mm	M8
EP4	35 mm	165 mm	130 mm	M10



Motor mounting dimensions for EP2 Pumps



Motor mounting dimensions for EP3 & EP4 Pumps

Kits and Replacement Hoses Ordering Information

Replacement Hose Kits*

	EP2006	EP2010	EP2013	EP3016	EP3019	EP4025	EP4029
Natural Rubber	24K482	24K492	24K502	24K522	24K532	24K542	24K552
Nitrile	24K484	24K494	24K504	24K524	24K534	24K544	24K554
EPDM	24K483	24K493	24K503	24K523	24K533	24K543	24K553
CSM	24K487	24K497	24K507	24K527	24K537	24K547	24K557

*Includes 2 clamps

VFDs (Variable Frequency Drives)

Hp	Input Voltage	Output Voltage	Used with Pump	Part Number
0.5	120 or 240 VAC (1 Phase)	240 VAC (3 Phase)	EP2	16K905
0.5	208-240 VAC (1 or 3 Phase)	208-240 VAC (3 Phase)	EP2	16K906
1	120 or 240 VAC (1 Phase)	240 VAC (3 Phase)	EP2	16K907
1	208-240 VAC (1 or 3 Phase)	208-240 VAC (3 Phase)	EP2	16K908
1.5	120 or 240 VAC (1 Phase)	240 VAC (3 Phase)	EP3	16K909
1.5	208-240 VAC (1 or 3 Phase)	208-240 VAC (3 Phase)	EP3	16K910
2	208-240 VAC (1 or 3 Phase)	208-240 VAC (3 Phase)	EP4	16K911
2	400-480 VAC (3 Phase)	400-480 VAC (3 Phase)	EP4	16K912

Hose Pump Lubricant

Description	Part Number
Glycerin Based Hose Lube (1 quart)	24K692
Glycerin Based Hose Lube (1 gallon)	24K694
Glycerin Based Hose Lube (55 gallon drum)	24M435
Silicone Based Hose Lube (1 gallon)	24K686
Silicone Based Hose Lube (55 gallon drum)	24M434

EP2 requires 8 oz (250 mL) of hose lube; EP3 requires 1 qt (1 l) of hose lube; EP4 requires 1/2 gallon (2 l) of hose lube
Factory fill is glycerin, shipped in a separate bottle

Other

Description	Part Number
“Band-It” Clamp Tool	24L497

All written and visual data contained in this document are based on the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Call today for product information or to request a demonstration.
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